# Sx TAG



Portable hybrid IP/SDI + Analog Generation, Analysis & Video/Audio Monitoring



### **Sx TAG Overview**

Sx TAG with its SFP, SDI and analog I/O offers incredible versatility in a handheld device. It is ideal for IP, 3G/ HD/SD-SDI, optical SDI, HDMI and Analog test & measurement as well as AES eye analysis, for applications demanding true mobility and ease of use.

It provides support for SMPTE ST 2110-20/30/40 encapsulation/decapsulation with ST 2059 PTP, SDP and NMOS as well as SMPTE ST 2022-6 encapsulation/ decapsulation, using 10GE IP SFP+ modules developed by Riedel.

With its impressive 4.3" 16:9 TFT monitor and easy to control menu buttons, the Sx TAG has been designed specifically for the professional broadcast engineer.

Configured with a full range of test patterns, both static and animated, the Sx TAG is ideal for studio, OB, and lab environments. An extensive array of video and audio tools include a multi-format waveform, vectorscope and video display, plus data view and VANC/ANC inspector. Over 350 formats are supported for compliance monitoring. Signal generation offers 32 test patterns, including pathological.

The Sx TAG features support for 16-channel audio metering and bitstream generation and analysis of Dolby E, Dolby Digital and Dolby Digital Plus. Embed a single external 48kHz synchronous AES stream into the generated video stream, as well as extract embedded audio and export it via the AES output.

Advanced AV Delay Generation and Analysis tools offer an end-to-end solution for the measurement of Audio to Video differential delay through a broadcast system. The tool provides a realtime update of the differential delay between the video content and the selected audio channel pair to measure the propagation (latency) or pipeline delay.

With a built-in TCP/IP interface for remote control and comprehensive status logging with custom reports, the Sx TAG offers unmatched ease of use for busy engineers who need to diagnose faults and assure compliance quickly.

### **Sx TAG Key Features**

- 3-in-1 IP & SDI Generator, Analyzer, Monitor
- IP, Analog, 3G-SDI, HD-SDI, SD-SDI
- ST 2110-20/30/40 & ST 2022-6 encap/ decap, ST 2059 PTP, SDP and NMOS
- SFP cage for SDI-Optical, HDMI and IP applications
- Over 350 supported formats
- High quality 16:9 picture monitor
- 16 channel embedded audio generation, analysis & monitoring with 1x AES in, 1x AES out, 48kHz 75 Ohm
- AV delay generation and analysis
- Signal generation with 32 test patterns; Pathological, Zone Plate, moving patterns and user ident
- Audio genlock Bi/Tri/SDI cross lock
- Dolby bitstream generation and analysis
- Waveform monitor & Vectorscope
- Ethernet based remote operation
- Comprehensive status logging with custom reports
- Rechargeable lithium battery delivers 1-2 hours operation and mains power

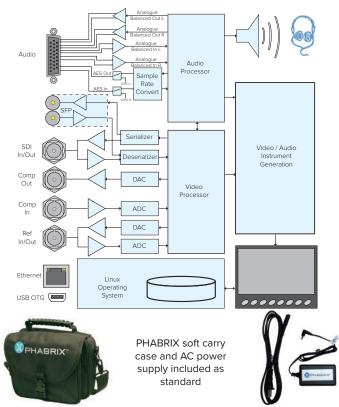
## PHABRIX Sx TAG 3-in-1 Hybrid IP/SDI Generator/Analyzer/Monitor



## **Specifications**

Monitor	
Display resolution	480 x 272 pixels auto scaling
Display type	16:9 24 bit color TFT
Display size	95 x 54mm
Processing	All digital
SDI Video Input/Output	
SDI	SD-SDI, HD-SDI (3G-SDI Option)
SDI Input/Output	1 x 75 Ohm BNC
EDH	Yes (SD-SDI)
Composite Video Input/Output	
Composite Format	PAL/NTSC
Composite Input/Output	1 x 75 Ohm BNC
SFP Input/Output	Optical/Copper/HDMI -Tx/Rx (Optional) IP SMPTE 2110 & 2022-6 Tx/Rx (Optional)
Reference Input/Output	
Genlock	Bi/Tri/SDI with cross lock
Ref Generator	Bi-level PAL/NTSC +/- 5ppm
Generator Timing	0 to 1 frame WRT source
SFP Input/Output	
Interface	Single Tx, Single Rx or Transceiver Cage supports MSA or non MSA
Module Types	SDI Fiber, SDI Coaxial, HDMI, 2110/2022-6
See phabrix.com for supported SFP modules	
See phabrix.com for supported S	FP modules
See phabrix.com for supported S Audio	FP modules
	FP modules 0.5 watts
Audio	
Audio Internal speaker	0.5 watts
Audio Internal speaker Audio DAC	0.5 watts 24 bit stereo
Audio Internal speaker Audio DAC Headphone socket	0.5 watts 24 bit stereo 3.5mm with auto line out
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI)
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type 5 menu keys, 8 custom select
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel Integral battery supply	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type 5 menu keys, 8 custom select 2 hours lithium polymer
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel Integral battery supply Internal storage	0.5 watts 24 bit stereo 3.5mm with auto line out 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type 5 menu keys, 8 custom select 2 hours lithium polymer 8GB
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel Integral battery supply Internal storage Remote control	0.5 watts 24 bit stereo 3.5mm with auto line out 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type 5 menu keys, 8 custom select 2 hours lithium polymer 8GB Web browser interface
AudioInternal speakerAudio DACHeadphone socketGenerator/MonitorMeteringAES Input/OutputAnalog Input/OutputGeneralNavigation panelIntegral battery supplyInternal storageRemote controlLAN Interface	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type 5 menu keys, 8 custom select 2 hours lithium polymer 8GB Web browser interface 10/100 BASE T
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel Integral battery supply Internal storage Remote control LAN Interface Ethernet	0.5 watts 24 bit stereo 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type Balanced stereo pair via 15-way D-type 3 balanced stereo pair via 15-way D-type Balanced stereo pair via 15-way D-type 3 balanced stere
Audio Internal speaker Audio DAC Headphone socket Generator/Monitor Metering AES Input/Output Analog Input/Output General Navigation panel Integral battery supply Internal storage Remote control LAN Interface Ethernet Carry case	0.5 watts 24 bit stereo 3.5mm with auto line out 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type Balanced stereo pair via 15-way D-type 3 banced stereo pair via 15-way D-type 8 banced stereo pair via 15-way D-type 4 banced stereo pair via 15-way D-type 8 banced stereo pair via 15-way D-type 3 banced stereo pair via 15-way D-type 8 banced stereo pair via 15-way D-type 8 banced stereo pair via 15-way D-type 10 banced stereo pair via 15-way D-type 8 banced stereo pair via 15-way D-type 10 banced stereo pair via 15-way D-type
AudioInternal speakerAudio DACHeadphone socketGenerator/MonitorMeteringAES Input/OutputAnalog Input/OutputGeneralNavigation panelIntegral battery supplyInternal storageRemote controlLAN InterfaceEthernetCarry caseAC power supply	0.5 watts 24 bit stereo 3.5mm with auto line out 3.5mm with auto line out 48 kHz 20-bit (SD-SDI) 24-bit (HD-SDI) 16 channel PPM with phase indication 16 channel PPM with phase indication 75 ohm AES via 15-way D-type Balanced stereo pair via 15-way D-type Balanced stereo pair via 15-way D-type 2 bars via 15-way D-type 8 GB 5 menu keys, 8 custom select 2 hours lithium polymer 8 GB 4 GB 4 GB 4 GB 4 GB 4 GB 4 GB 4 GB 4

## Schematic of the Sx TAG



# **Ordering Information**

#### Handheld Device

 $\ensuremath{\mathsf{PHSXTAGC}}$  - TAG Analyser/Generator/Monitor – SD/HD Handheld (Includes PHSXM-CAGEP and PHSXO-GEN)

**PHSXTAGC-IP** - TAG Analyser/Generator/Monitor + IP – PHSXTAGC + PHSXO-IP + PHSFP-10SR-IP (multi-mode only)

#### Sx TAG Software Options

PHSXO-AVD - AV Delay Analysis
PHSXO-3GADV - 3G, Advanced video formats + 2K – 3G-SDI, 422/444, YUV/RGB, 10/12 bit, SMPTE 428-9 D-Cinema/SMPTE ST 2048-2:201
PHSXOS - Command Scripts and Reports (Repeat testing and create print report)
PHSXOSD - SDI Data Display + VANC/ANC Inspector
PHSXOZ - Enhanced Remote Control integration
PHSXOZ - Advanced zone plate generator (Programmable Y zone plate)
PHSXO-DAG - Dolby E/D/D+ analysis + generation (streaming, metering, timing)
PHSXO-EDID - HDMI EDID viewer software license (requires PHSFP-HDMI-OUT)
PHSXO-ENGT - Engineering bundle with five options, namely PHSXOS, PHSXOSD, PHSXOR, PHSXOZ, PHSXO-DAG
PHSXO-IP - IP Encap/Decap license (requires PHSFP-10SR-IP)

PHSXWM - Sx Wall mounting bracket

#### **Extended Warranty**

PHSX-3YEAR - 3 Year Warranty PHSX-5YEAR - 5 Year Warranty Phabrix® Limited Omega House, Enterprise Way, Thatcham, Berkshire RG19 4AE, United Kingdom tel + 44 (0)f635 873030 email: info@phabrix.com PHABRIX is a registered trademark

PHABRIX products are continuously being updated. Please visit www.phabrix.com for latest product information. July 2023